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ABSTRACT

This report presents the findings of a study conducted between July and October 1979 to analyze the information needs of New England citizens, their information seeking patterns, and the effectiveness of libraries in meeting those needs. It examines everyday information needs, both occupational and non-occupational, of adult residents from 2,400 randomly selected households, 400 per state, who participated in telephone interviews lasting an average of 15 minutes. The interviews were designed to gather data on situations requiring information, the behavior of information seekers, the types and varieties of source providers consulted, the perceived level of satisfaction with source providers, the reasons for library use and non-use, and barriers encountered in the information search. It was found that New England residents infrequently consulted libraries as information resources, that many respondents considered libraries to be irrelevant to their information needs, and that libraries were used most by people who fell within a few occupational categories. Five references are cited, and tables display the data collected. (FM)

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NEW HAMPSHIRE CITIZENS' INFORMATION SEEKING PATTERNS

by

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Introduction

The U.S. Office of Education, Office of Libraries and Learning Resources, has sponsored an investigation into the everyday information needs of New England residents, which was conducted during the months of July to October 1979. The purpose of this presentation is to discuss the information seeking patterns of the 400 New Hampshire citizens and to compare their patterns to those of the 2,000 survey respondents from the other five states. In addition, we shall look at the reasons for use and non-use of libraries as an information source provider.

Residents from 2,400 randomly selected households, 400 per state to simplify cross-state comparisons, participated in telephone interviews lasting an average of fifteen minutes. Households were selected on the basis of a computer-generated list of New England telephone numbers. Demographic data for those interviewed were representative of demographic characteristics for individual states and the region as shown in Table 1.

Library effectiveness must be viewed within the context of people's information needs, the strategies by which people gather information, and the role of source providers in supplying information. Libraries are only one of the many information source providers. In some situations involving an information

*Presented at the New Hampshire Library Council's Annual Conference at North Conway, New Hampshire, May 12, 1980.

need, they might be regarded as either the most or least helpful source provider, or they might constitute one of the sources consulted in the search for information.

Previous studies have examined libraries as one of the information source providers used for addressing information needs, but none of these have extensively reported the reasons for use and non-use of libraries. In addition, they have only probed information needs at the local and state levels.[1-2] Comparisons among these studies are complicated by the fact that questionnaires were modified to meet specific objectives and that emphasis was placed on coping and psychological needs. This paper presents findings of the first regional analysis and specifically looks at library effectiveness in terms of meeting citizens' information needs.[3-5] It examines everyday information needs, both occupational and non-occupational, of adult residents (sixteen years and older) from the six New England states. The information needs relate to situations in which residents made decisions, sought answers, or clarified or resolved problems. By probing individuals' situations, we hope to provide insights into the behavior of information seekers (e.g., their source awareness and problem articulation), the types and variety of source providers consulted, the perceived level of satisfaction with information source providers, the reasons for library use and non-use, as well as barriers encountered in the information search. This paper, which presents some of the findings from this research project, places library use, for New Hampshire and for the region as a whole, within the context of specific situations requiring information and the variety of sources consulted in the research for information.

SITUATIONS REQUIRING INFORMATION

Information needs do not arise in a vacuum: they are related to specific situations in which there was a desire for information. Operating on this premise, the 2,400 respondents were asked to explain recent situations from the past

month or so in which there was a desire for information. A total of 3,530 situations, both of an occupational and non-occupational character, were identified.

Table 2 presents the major categories for both occupational and non-occupational situations described by survey respondents. The Spearman Rank Order Correlation Coefficient was used for a comparison of rankings between work and non-work situations. It reflects a significant difference ($r = 0.367$). As might be expected, the respondents discussed work situations directly related to executing tasks, setting up businesses, getting/changing jobs, defining their jobs, maintaining relations with supervisors and co-workers, and receiving salaries and benefits. Their non-work situations reflected more consumer issues, housing and household maintenance, education and schooling, and money matters.

Table 3 analyzes the situation categories and shows the distribution among the six states. Each situation category groups answers from the respondents on various aspects related to that category. For example, the consumer category includes respondents' information needs of product quality, product availability, product information, billing, service availability, service quality, service information, prices, consumer protection, and other consumer issues. Table 3 indicates that 52.5 percent of the situations described by New Hampshire citizens pertained to job-related: technical, consumer issues, job-related: getting/changing jobs, housing and household maintenance, and education and schooling. However, the percent distribution of New Hampshire citizens' information needs under each situation category differs from one to another. For some basic categories such as consumer issues, housing, and changing jobs, New Hampshire citizens' concern is similar to that of people from

Table 2: Major Situation Categories

Situation	Work	Non-Work	Total	Percent of Total Situations
Job-Related: Technical[1]	470	8	478	13
Consumer Issues	37	434	471	13
Job-Related: Getting/ Changing Jobs	321	30	351	10
Housing and Household Maintenance	24	266	290	8
Education and Schooling	61	181	242	7
Recreation	15	162	177	5
Money Matters	30	146	176	5
Job-Related: Organizational Relations[2]	172	3	175	5
Health	38	118	156	4
Job-Related: Salary and Benefits	121	5	126	4
Child Care	18	82	100	3
Personal Relations	5	93	98	3
Transportation	13	47	60	2
Energy	11	46	57	2
Assorted Miscellaneous	236	337	573	16
TOTAL	1,572	1,958	3,530	100

[1]Issues related to execution of specific tasks or related to setting up businesses.

[2]Job definition and relations with supervisors and co-workers.

Table 3: Examination of Subject Categories by State

STATE	Neighbor-hood	Consumer	Housing	Changing Jobs	Salary Benefits	Organiza-tional
Connecticut	8 (17.0)	67 (14.1)	44 (15.1)	47 (13.2)	25 (19.7)	32 (18.5)
Maine	14 (29.4)	63 (13.3)	58 (19.9)	54 (15.3)	13 (10.3)	39 (22.2)
Massachusetts	7 (15.1)	68 (14.5)	56 (19.2)	42 (12.0)	33 (26.3)	29 (16.5)
New Hampshire	6 (12.6)	84 (17.8)	52 (18.0)	67 (19.1)	21 (16.5)	38 (21.9)
Rhode Island	4 (8.5)	94 (20.0)	35 (12.3)	57 (16.2)	15 (12.0)	12 (6.9)
Vermont	8 (17.4)	96 (20.3)	45 (15.6)	86 (24.3)	19 (15.2)	25 (14.0)
TOTAL	47 (1.3)	471 (13.3)	290 (8.2)	353 (10.0)	126 (3.6)	176 (5.0)

(Table 3: Examination of Subject Categories by State)

STATE	Public Assistance	Child Care	Other Family	Personal Relations	Legal	Crime Safety	Energy
Connecticut	1 (5.2)	11 (11.2)	8 (12.3)	11 (11.7)	8 (14.5)	10 (42.2)	3 (5.7)
Maine	2 (18.6)	20 (20.3)	7 (11.1)	25 (25.2)	6 (11.2)	2 (10.3)	11 (19.8)
Massachusetts	6 (48.8)	33 (33.3)	10 (16.8)	18 (18.3)	12 (22.2)	1 (5.6)	25 (44.2)
New Hampshire	0 (0.0)	9 (8.8)	9 (14.5)	19 (19.2)	15 (26.8)	2 (9.9)	2 (3.5)
Rhode Island	3 (21.7)	12 (12.4)	12 (19.1)	14 (13.9)	8 (14.6)	6 (24.1)	1 (1.2)
Vermont	1 (4.7)	14 (14.0)	16 (26.1)	12 (11.8)	6 (10.7)	2 (7.8)	15 (25.6)
TOTAL	13 (0.4)	99 (2.8)	61 (1.7)	98 (2.8)	55 (1.6)	23 (0.7)	58 (1.6)

(Table 3: Examination of Subject Categories by State)

STATE	Technical	Other Work	Education	Health	Transportation	Recreation	Money Matters
Connecticut	95 (19.9)	39 (20.0)	54 (22.4)	28 (17.9)	3 (4.7)	44 (24.9)	26 (14.6)
Maine	60 (12.7)	26 (13.3)	34 (13.9)	15 (9.3)	7 (12.3)	20 (11.1)	22 (12.6)
Massachusetts	46 (9.7)	12 (6.4)	37 (15.3)	31 (20.0)	14 (22.4)	35 (19.8)	26 (14.8)
New Hampshire	88 (18.5)	31 (16.0)	43 (17.9)	33 (21.2)	15 (24.6)	33 (18.7)	35 (20.0)
Rhode Island	107 (22.3)	58 (29.8)	40 (16.6)	27 (17.6)	12 (20.4)	22 (12.4)	35 (20.0)
Vermont	81 (16.9)	28 (14.5)	33 (13.7)	22 (14.0)	9 (15.6)	23 (13.2)	32 (18.0)
TOTAL	477 (13.5)	195 (5.5)	242 (6.9)	156 (4.4)	60 (1.7)	177 (5.0)	176 (5.0)

(Table 3: Examination of Subject Categories by State)

STATE	Current Affairs	Other	Row Total
Connecticut	6 (12.8)	23 (18.2)	593 (16.8)
Maine	9 (18.7)	17 (13.0)	524 (14.8)
Massachusetts	13 (25.7)	4 (2.8)	561 (15.9)
New Hampshire	7 (14.7)	27 (21.5)	638 (18.1)
Rhode Island	7 (15.1)	34 (26.9)	616 (17.5)
Vermont	6 (13.0)	22 (17.6)	600 (17.0)
TOTAL	49 (1.4)	128 (3.6)	3532 (100.0)

the other five states. On the other hand, in categories such as childcare and energy, we see significant differences between those in New Hampshire and those in some of the other states.

Viewing the work and non-work situations on the basis of the five themes specified for the White House Conference on Library and Information Services adds another perspective. Some 54.9 percent of the work situations dealt with the theme of meeting personal needs, while 38.8 percent related to improving organizations and the professions. However, for non-work situations, 87.4 percent of the situations pertained to meeting personal needs.

EFFECTIVENESS OF LIBRARIES AS INFORMATION SOURCE PROVIDERS

Source Providers Consulted

Presented with a list of information source providers, respondents selected those which they used or were in the process of consulting to resolve their information need. To ensure validity in responses, the list was randomized and presented according to a prescribed procedure. The sources consulted are displayed in Table 4 in order of frequency given by the respondents. Also given are the percentages by which respondents regarded the sources used as most and least helpful. Libraries were listed ninth in order of source providers consulted and were considered as most and least helpful in only 3 percent of the situations in which they were consulted.

The sources of information were grouped into broader categories of interpersonal (own experience, friend, neighbor, relative, or co-worker), institutional (professional, school, church, library, social services or charity, or governmental), mass media (newspaper, television, magazine, books, or radio),

Table 4: Information Source Providers Consulted

Sources Consulted	Number of Situations	Percent of Respondents Citing Source	Percent by Which Source is Listed as: Most Helpful	Least Helpful
Your own experience	2,611	74	25	16
Something a friend, neighbor, or relative told you	1,993	57	15	17
Something you read in a newspaper, magazine or book	1,585	45	10	12
Something you learned from someone who works for a store, company or business	1,572	45	10	10
Something you learned from a co-worker	1,534	43	12	11
Something told you by a professional (e.g., doctor or lawyer)	1,420	41	13	6
Something you learned from someone who works in government	943	27	5	6
Something you saw or heard on TV or radio	731	21	1	8
Something you got from a library	596	17	3	3
Something you found in the telephone book	580	16	1	6
Something you learned from someone who works for a social service agency or charity	461	13	2	3
Something you learned from a religious leader	337	10	1	1
Other	86	3	2	0

and other. As shown in Table 5, New England residents were most likely to draw upon interpersonal sources of information and to label them as most helpful.

Table 5: Categorization of Source Categories

Source Categories	Most Helpful	Least Helpful
Interpersonal	52%	44%
Institutional	35%	29%
Mass Media	12%	26%
Unclassified	1%	1%

Table 5, while providing a useful perspective on the importance of interpersonal source providers, oversimplifies the process by which people seek information. People frequently did not rely exclusively upon one type of source provider. Table 6 presents a more accurate impression of information source providers consulted by citizens of each of the six states. It indicates that for the category of interpersonal, only New Hampshire received a significantly larger percentage than the other states.

As far as the institutional source providers are concerned, Table 6 indicates that the New England residents consulted these sources in over three-fourths of the situations. However, as Table 7 indicates, libraries ranked fourth among those institutional source providers consulted. Professional persons as well as employees of businesses, stores, and companies were most likely to be consulted and to be regarded as most helpful. Although government agencies were used in 10 percent more situations than were libraries, their rating as most helpful was similar to that of libraries.

Table 6: Type of Information Source Consulted by State

State	No Indication	Interpersonal Only	Institutional Only	Media Only	Personal and Institutional	Personal and Media	Institutional and Media	All Three	Row Total
Connecticut	1 (6.2)	78 (16.4)	24 (18.7)	10 (26.1)	176 (18.5)	47 (17.4)	15 (13.8)	242 (15.6)	593 (16.8)
Maine	1 (14.8)	69 (14.5)	24 (18.7)	5 (13.5)	136 (14.2)	26 (9.6)	14 (12.9)	249 (16.1)	524 (14.8)
Massachusetts	3 (34.6)	64 (13.6)	17 (13.4)	5 (12.5)	143 (15.0)	54 (19.9)	24 (22.4)	250 (16.1)	561 (15.9)
New Hampshire	1 (9.9)	109 (23.1)	25 (19.5)	7 (17.0)	151 (15.8)	61 (22.4)	22 (20.0)	262 (16.9)	638 (18.1)
Rhode Island	3 (34.6)	85 (18.0)	24 (18.8)	8 (19.0)	172 (18.0)	41 (15.1)	16 (15.1)	268 (17.3)	616 (17.5)
Vermont	0 (0.0)	67 (14.3)	14 (11.0)	5 (11.8)	177 (18.5)	42 (15.5)	17 (15.8)	278 (17.9)	600 (17.0)
TOTAL	8 (0.2)	472 (13.4)	129 (3.6)	40 (1.1)	955 (27.0)	271 (7.7)	109 (3.1)	1549 (43.9)	3532* (100.0)

* Rounding

Table 7: Institutional Source Providers Depicted As Most and Least Helpful

Source Providers	Total Percent Of Use	Percent by Which Source Was Listed As: Most Helpful	Least Helpful
Professionals, such as doctor or lawyer	41	13	6
Store, company, or business	45	10	10
Government agency	27	5	6
Library	17	3	3
Social services agency or charity	13	2	3
Religious organization or leader	10	1	1

Further analysis by states shows no significant difference.

Libraries as Most Helpful Information Source Providers

To recap, although libraries were used in only 17 percent of the total situations described, they were most often used as an information source in situations dealing with job-related: technical, education and schooling, and consumer issues (see Table 8). They were mentioned in all of the remaining situation categories, but to varying degrees.

As was shown in Table 4, respondents specified the sources which they considered as most and least helpful in resolving their information needs. Libraries were regarded as most and least helpful in 3 percent of the situations in which they were suggested as an information source. Three situations (job-related: tehcnical, consumer issues, education and schooling) accounted for 52 percent of the instances in which libraries were suggested as

Table 8: Library Use by Situations

Situation	Use of Libraries: Work	Non-Work	Total	Percent of Total Situations
Job-related: Technical	115	2	117	19.6
Education and Schooling	20	56	76	12.7
Consumer Issues	7	47	54	9.1
Job-related: Getting/Changing Jobs	46	7	53	8.9
Job-related: Organizational Relations	32	1	33	5.5
Health	13	16	29	4.9
Housing and Household Maintenance	4	25	29	4.9
Recreation	3	22	25	4.2
Money Matters	5	18	23	3.9
Child Care	2	17	19	3.2
Personal Relations	0	12	12	2.0
Job-related: Salary and Benefits	9	2	11	1.8
Energy	1	9	10	1.7
Assorted Miscellaneous	35	69	104	17.4
Rounding Errors			1	.2
TOTAL:	292	303	596	100

(Table 8: Library Use by Situations)

Situation	Non-Use of Libraries: Work	Non-Work	Total	Percent of Total Situations
Job-related: Technical	355	5	360	12.3
Education and Schooling	40	123	163	5.6
Consumer Issues	30	387	417	14.2
Job-related: Getting/Changing Jobs	274	25	299	10.2
Job-related: Organizational Relations	140	2	142	4.8
Health	25	102	127	4.3
Housing and Household Maintenance	19	241	260	8.9
Recreation	12	140	152	5.2
Money Matters	24	128	152	5.2
Child Care	16	64	80	2.7
Personal Relations	5	81	86	2.9
Job-related: Salary and Benefits	111	3	114	3.9
Energy	11	37	48	1.6
Assorted Miscellaneous	214	317	531	18.1
Rounding Errors			3	.1
TOTAL:	1,276	1,655	2,934	100

the most helpful source. Respondents labeling libraries as the most helpful information source provider were most likely to reside in the states other then Maine and Vermont; together these states accounted for only 19.7 percent of the situations in which libraries were given as the most helpful source. Distribution among the other four states was similar. This finding is perhaps understandable given the sparse and more rural population within these states as well as the proportionately smaller number of libraries located there. It may be more convenient for these residents to draw upon other information source providers.

Table 9 displays library use according to occupational classification. It indicates that professional and technical workers, managers and administrators, and students accounted for 56 percent of the situations in which libraries were used. Also, professional and technical workers as well as students suggested 47.5 percent of those situations in which libraries were given as the most helpful source provider. No significant difference was found by state.

Libraries as Least Helpful Source Provider

Libraries were mentioned as the least helpful source provider in 3 percent of the situations in which libraries were mentioned as a resource in the search for information. Approximately one-half of the situations (49 percent) in which libraries were labeled as least helpful dealt with education and schooling, job-related: technical, and job-related: getting/changing jobs. The percentage of other situations in which libraries were suggested as least helpful was small; it ranged from 0 to 8. There was almost even distribution by state, race, income, education, sex, and geographic residence.

Table 9: Library Use by Occupation

Occupational Classification*	Library Use: Number of Situations	Library Use: Percent of Total Situations	Number of Situations (Percent) by which Source was Considered as: Most Helpful	Least Helpful
Professional and Technical Workers	171	29.2	32 (29.4)	22 (22.3)
Managers and Administrators (except farm)	45	15.2	6 (5.6)	7 (7.2)
Sales Workers	36	6.2	5 (4.9)	7 (7.3)
Clerical and Kindred Workers	56	9.6	13 (12.4)	5 (4.7)
Craftsmen and Kindred Workers	53	9.1	8 (7.2)	10 (10.5)
Operatives (except transport)	19	3.2	3 (2.7)	6 (6.0)
Transport Equipment Operatives	5	0.8	1 (0.5)	2 (1.6)
Laborers (except farm)	10	1.7	----	3 (2.9)
Farmers and Farm Managers	----	----	----	----
Farm Laborers and Farm Foremen	2	0.3	----	2 (1.9)
Service Workers (except private household)	52	8.9	6 (5.9)	8 (7.9)
Private Household Workers	1	0.2	----	1 (0.5)
Retired People	14	2.4	2 (1.6)	3 (2.8)
Student	69	11.7	20 (18.1)	13 (13.2)
Unemployed People	15	2.6	3 (2.7)	5 (4.6)
Housewives	37	6.4	9 (8.7)	6 (6.5)
Non-respondents	11	----	----	----
TOTAL	596			

*John Vaughn, "Occupational Categories and Occupational Prestige Scales,"

According to Table 9, libraries were the least helpful source for professional and technical workers, students, and craftsmen and kindred workers. Together these groups accounted for the 46 percent of the occupational groups labeling libraries as the least helpful source. The percentages for the other occupational groups are small, but so are their percentages of library use.

REASONS FOR LIBRARY USE AND NON-USE

Of the 17 percent of situations in which libraries were used, libraries were consulted in 87 percent of these situations because respondents felt that library materials were relevant to the resolution of their problems. The following were only negligible factors: convenience to home or place of employment, attitude and personal service of library staff members, and happened to be there looking for something else.

For the situations in which libraries were not given as one of the information sources consulted, interview subjects were queried as to the major reasons. As reflected in Table 10, over 50 percent felt that either their situations did not require library use or the materials and services offered by libraries were in some way inadequate to the resolution of their information need. It might be noted that 12 percent maintained that they already had more than enough information and that library resources would only result in an information overload. The reasons for non-use were evenly distributed among situation categories. Also, analysis by demographic characteristics and work and non-work situations did not product statistically significant differences.

Table 11 highlights the reasons for non-use of libraries as an information source provider in the situations described by New Hampshire and other states'

Table 10: Reasons for Non-Use of Libraries

Reasons	Number of Situations	Percent of Library Non-Use Situations
Didn't need libraries	769	26.0
Didn't think libraries could help	425	14.4
Had enough information from other sources	322	10.9
Didn't occur to me	285	9.6
No reason given	243	8.2
In the past, I could not find what I want/ need; assume same to be true in this case	208	7.0
Lack of time	163	5.5
Libraries don't own what I want/need	97	3.3
Inconvenient location	93	3.1
Library holdings are not current enough	69	2.3
Assorted miscellaneous	286	9.7

residents. In some categories, it is difficult to state the real difference among states, since the number of responses per cell was too small to be statistically significant. However, in some categories there were significant variations among the status. For example, although on the whole, location of the library is not an overriding problem, residents of Maine, Vermont, and New Hampshire seemed to be more concerned about it than residents of the other states. In the category "thought library would be of no help," 26.1 percent of the total New Englanders (111 persons) responding to this category resided in New Hampshire.

Additional reasons for library use and non-use are further evident from an examination of why respondents regarded source providers as most and least helpful. In most cases, (75.6 percent) respondents consulted the most helpful source provider due to prior experience. It did not matter if this source provider was nearby and easily accessible. What was more important was their prior experience with the source provider. It should be noted that in 7 percent of the situations in which libraries were not used, they did not consult libraries due to past unsuccessful experiences in library use. Most people (86 percent) were not referred to a given source provider, but went because of prior experience or speculation that the source might be helpful in this particular situation. Similarly, some 91 percent of those labeling libraries as least helpful had not been referred there.

In three-quarters of the situations in which libraries were considered as least helpful sources, library staff members did not suggest that the information seeker consult additional places. It would seem that source providers, least as well as most helpful, often do not provide referral service. It is up to the individual in consultation with friends, neighbors, relatives,

or co-workers to think of source providers potentially useful for the situation under investigation.

Respondents were asked if there was anything about the most helpful source providers which they did not like. Aside from miscellaneous comments, in those situations in which libraries were the most helpful source, 46.1 percent emphasized the relevance and accuracy of the response. On the other hand, some 59.9 percent of the respondents regarding libraries as the least helpful source provider were concerned about the relevance, accuracy, and up-to-dateness of the information provided.

As has already been shown, respondents relied most often on interpersonal sources and found them most helpful in 35 percent of the situations. Of the institutional sources consulted, libraries ranked fourth, behind businesses, professional people, lawyers, and government agencies.

It would seem, on the basis of these findings, that if respondents encounter similar situations in the future, they will, in all probabilty, adopt similar search strategies. They might bypass the least helpful source, but not necessarily so, and approach first of all the source which they found most helpful. Other factors to recognize are respondents reliance on source providers of an interpersonal nature, the degree of satisfaction with the most helpful source provider (92.6 percent expressed that they were either very or somewhat satisfied), the fact that many people do not think of libraries as a potentially useful source provider for many situations, and that people may already have enough information to deal with the problem or issue. Given these circumstances, it can be questioned how many people, without outside stimulus, will alter search strategies in order to consult libraries.

Table 11: Reasons for Non-use of Libraries by State

State	Didn't need libraries	Didn't think libraries could help	Had enough information	Didn't occur to me
Connecticut	94 (12.2)	99 (23.4)	58 (18.1)	59 (20.8)
Maine	118 (15.4)	45 (10.5)	52 (16.0)	41 (14.2)
Massachusetts	171 (22.3)	29 (6.9)	35 (10.9)	35 (12.3)
New Hampshire	120 (15.6)	111 (26.1)	59 (18.4)	47 (16.3)
Rhode Island	122 (15.9)	85 (19.9)	67 (20.8)	43 (15.2)
Vermont	143 (18.6)	56 (13.2)	51 (15.8)	60 (21.1)
COLUMN TOTAL	769 (26.0)	425 (14.4)	322 (10.9)	285 (9.6)

(Table 11: Reasons for Non-use of Libraries by State)

State	No reason given	Could not find what I want/need	Lack of time	Libraries don't own
Connecticut	37 (15.3)	39 (18.6)	35 (21.4)	4 (4.5)
Maine	40 (16.3)	31 (15.1)	24 (14.6)	19 (20.1)
Massachusetts	41 (16.9)	10 (5.0)	15 (9.3)	40 (41.6)
New Hampshire	39 (16.0)	53 (25.5)	37 (22.6)	4 (4.3)
Rhode Island	46 (18.8)	39 (18.9)	28 (17.3)	1 (1.3)
Vermont	41 (16.7)	35 (16.9)	24 (14.8)	27 (28.2)
COLUMN TOTAL	243 (8.2)	208 (7.0)	163 (5.5)	97 (3.3)

(Table 11: Reasons for Non-use of Libraries by State)

State	Inconvenient location	Not current enough	Row Total
Connecticut	15 (16.3)	8 (11.0)	491 (16.6)
Maine	22 (23.7)	4 (6.4)	440 (14.9)
Massachusetts	10 (10.2)	20 (28.7)	454 (15.3)
New Hampshire	16 (17.0)	11 (16.4)	540 (18.3)
Rhode Island	13 (14.2)	10 (14.5)	524 (17.7)
Vermont	17 (18.4)	16 (23.2)	511 (17.3)
COLUMN TOTAL	93 (3.1	69 (2.3)	2960 (100.0)

POTENTIAL BARRIERS ENCOUNTERED IN THE SEARCH FOR INFORMATION

While recognizing that there are numerous barriers to information seeking, in this study we specifically examined five factors encountered in the search for information: the cost in money, the amount of time the search took, up-to-dateness of the information obtained, the accuracy of the response to a question, and the understandability of the response. Survey respondents were asked to determine which of these factors were the most and least important.

Respondents occupational background will undoubtedly cause variations in the ranking of these five criteria, as shown in Table 12. The overall ranking suggested the following: accuracy (28 percent), understandability (23.5 percent), cost in money (18.9 percent), time (17.1 percent), up-to-datenes (6.0 percent), and unable to select (6.6 percent). As shown in Table 13, minor variations are evident from state to state.

Table 14 examines preference for the most important factor in relation to the one selected as the least important. Given the top-priority for the importance of accuracy as indicated in 969 of the total 3,466 situations, it is interesting to note that in 835 situation (86.1 percent), cost in money and time were selected as the least important factors. A similar pattern is noted for understandability as the most important factor. In other words, information seekers are willing to spend both money and time in seeking accurate and understandable information.

Additional effort was made to solicit pair comparison of the factors from respondents. First of all, they were asked if they were more concerned

TABLE 12: MOST IMPORTANT FACTOR CONSIDERED IN INFORMATION SEEKING PROGRAMS

Occupation	Most Important Factors (Number of Situations)						
	Cost	Time	Up-to-Dateness	Accuracy	Understandability	Unable to Choose	Total
Professional and technical workers	83	100	47	220	147	43	640
Managers and administrators (except farm)	47	37	17	103	71	21	296
Sales worker	54	54	11	74	62	22	277
Clerical and kindred workers	102	82	22	131	107	17	463
Craftsmen and kindred workers	97	83	18	97	84	29	408
Operatives (except transportation)	27	38	10	48	35	8	165
Transportation equipment operatives	7	6	3	15	9	3	43
Laborers (except farm)	30	13	5	11	22	10	91
Farmers and farm managers	8	4	0	7	3	1	22
Farm laborers and farm foremen	4	1	4	3	3	0	16
Service workers (except private household)	61	60	22	92	92	21	348
Private household workers	4	1	1	1	7	0	14
Retired	43	18	9	24	27	11	131
Unemployed	16	12	5	21	22	4	81
Housewife	30	34	17	44	54	22	201
TOTAL	640	582	203	959	803	216	3403
PERCENT OF TOTAL SITUATIONS	18.8	17.1	6.0	28.2	23.6	6.3	100.0

Table 13: Potential Barriers Encountered in the Information Search by State

State	Cost	Time	Up-to-dateness	Accuracy	Understandability	Unable to Choose	Row Total
Connecticut	101 (15.4)	83 (13.9)	37 (17.9)	174 (17.9)	136 (16.6)	51 (22.3)	582 (16.8)
Maine	115 (17.5)	73 (12.3)	28 (13.4)	125 (12.8)	130 (15.8)	46 (20.1)	516 (14.8)
Massachusetts	90 (13.8)	115 (19.4)	30 (14.3)	158 (16.3)	134 (16.3)	24 (10.5)	551 (15.9)
New Hampshire	112 (17.1)	120 (20.2)	44 (21.1)	178 (18.3)	140 (17.1)	34 (15.0)	628 (18.1)
Rhode Island	113 (17.2)	113 (19.0)	33 (15.8)	177 (18.2)	129 (15.8)	39 (17.2)	603 (17.4)
Vermont	125 (19.0)	90 (15.2)	37 (17.5)	160 (16.5)	150 (18.3)	34 (15.0)	596 (17.1)
TOTAL	656 (18.9)	593 (17.1)	209 (6.0)	972 (28.0)	818 (23.5)	229 (6.6)	3477 (100.0)

TABLE 14: PREFERENCE FOR THE MOST IMPORTANT FACTOR IN RELATION TO THE ONE SELECTED AS LEAST IMPORTANT

	Most Important Number of Situations (Percent)						
Least Important	Cost	Time	Up-to-Dateness	Accuracy	Understand-ability	Unable to Choose	Total
Cost	4 (0.6)	348 (58.8)	115 (54.8)	506 (52.2)	468 (57.2)	53 (23.5)	1493
Time	326 (50.1)	10 (1.7)	70 (33.5)	329 (33.9)	241 (29.4)	36 (15.7)	1012
Up-to-dateness	105 (16.1)	73 (12.3)	0 (00.0)	58 (6.0)	65 (7.9)	15 (6.5)	315
Accuracy	49 (7.5)	37 (6.2)	4 (2.1)	1 (0.1)	17 (2.1)	3 (1.5)	111
Understandability	137 (21.0)	98 (16.5)	14 (6.7)	55 (5.7)	1 (0.1)	13 (5.7)	318
Unable to choose	31 (4.7)	27 (4.5)	6 (3.0)	20 (2.0)	26 (3.2)	107 (47.1)	217
TOTAL	651 (18.8)	592 (17.1)	209 (6.0)	969 (28.0)	818 (23.6)	227 (6.5)	3466 (100.0)

with the time it took or the cost in money in getting information. In 52.2 percent of the situations, respondents emphasized time, and 30.1 percent selected cost, whereas the remaining 17.7 percent could not make a choice. In situations relating to health, issues, the execution of specific job tasks, setting up businesses, job definition, and relations with supervisors and co-workers, time was seen as a factor of greater importance than cost in money.

Respondents were further asked if they were more concerned with the cost in money than the understandability of the answer. Understandability was seen as more important in both work and non-work situations.

Finally, the respondents were asked to select between understandability of the answer amd the amount of time taken to get the answer. In 56.7 percent of the situations, they emphasized understandability, while in 30.9 percent of the situations, they favored time; the remaining 12.4 percent were unable to select one over the other.

On the basis of these findings, it would seem that the cost in money is not as important a factor as understandability and time. Although not probed in this specific sequence, accuracy is an important consideration as suggested in Table 14. Comparatively speaking, up-to-dateness of information was not as important as the other four factors.

For the 17 percent of total situations in which libraries were used, the most important factors, in order of preference, were accuracy (38.2 percent), understandability (23.7 percent), time (14.1 percent), cost (8.9 percent), and up-to-dateness (7.5 percent). In the remaining 7.6 percent of the situations, respondents were unable to select a preference. Thus, for the general public, it would seem that libraries ought to concentrate on the provision of accurate

and easily comprehensible information, while at the same time giving some attention to the amount of time it takes for people to find desired information. This tends to be in line with the everyday non-occupational situations for which libraries were used, such as consumer issues and housing. On the other hand, for certain groups of information consumers such as professional and technical workers, the importance of up-to-dateness of information is clearly shown in our results.

CONCLUSION

New England residents infrequently consulted libraries as an information resource in either work or non-work situations. They were more likely to consult interpersonal or selected institutional source providers. Of the institutional source providers consulted, libraries were rated as less effective then professional people, businesses, and government agencies. For the 17 percent using libraries, the majority (11 percent) do not have strong feelings about the libraries as the information provider.

Libraries are not the first or only place that the majority of survey respondents turned to for the resolution of an information need. In fact, many of them labeled libraries as irrelevant to their information need. In a number of cases, they admitted that they had not thought of libraries within the context of their information need, or they assumed that libraries would not contain the information needed.

On the basis of Table 9, it would seem that libraries are used most often by people falling within a few occupational categories. Many libraries within the New England region might be largely serving professional and

technical workers as well as students and housewives. Yet, even for these groups, libraries are not as effective as many of us might have assumed.

In summary, libraries need to determine the extent to which they are effective providers of information. It would seem that they need to publicize their resources and services more effectively. Still, awareness may not increase utilization. More attempts must be made to improve document delivery capability, to identify and reduce barriers encountered in gaining access to information, and to look at libraries as one of the many information source providers. The question that needs to be addressed is how to make libraries more effective competitors with other providers of information.

It is also clearly suggested that for the general public, libraries should make every attempt to provide accurate, relevant, and easily comprehensible information so that they can be a pertinent information provider to more people. For each specialized group of information seekers, there should be flexibilities in considering people's special needs and demands. Only when libraries are more user-oriented can they be viewed as a more effective information provider vis-a-vis other avialable sources.

Besides these general recommendations, our study is able to provide a detailed analysis in relation to each of the New England states. It would seem to be valuable for New Hampshire librarians to review and evaluate both similarities and differences in citizens' information seeking patterns within their states, so that they can plan and develop pertinent user-oriented library services and programs.

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FOOTNOTES

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